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SECRETARY, BOARD OF OIL, GAS & MINING

BEFORE THE BOARD OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH

IN THE MATTER OF THE REQUEST FOR BILL **BARRETT** AGENCY ACTION OF CORPORATION FOR AN ORDER MODIFYING THE BOARD'S ORDER IN CAUSE NO. 139-84 TO PROVIDE FOR THE DRILLING, ON A PILOT BASIS, OF ADDITIONAL WELLS TO ACHIEVE THE EQUIVALENT OF UP TO AN 80-ACRE WELL DENSITY **PATTERN FOR** PRODUCTION OF OIL, GAS AND ASSOCIATED HYDROCARBONS FOR THE LOWER GREEN RIVER - WASATCH FORMATIONS ON THE SECTIONAL DRILLINGS UNITS COMPRISED OF SECTIONS 12 AND 13, TOWNSHIP 4 SOUTH, RANGE 6 WEST, USM, DUCHESNE COUNTY, UTAH

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

Docket No. 2012-010

Cause No. 139-89

This Cause came on for hearing before the Utah Board of Oil, Gas and Mining (the "Board") on Wednesday, March 28, 2012, at approximately 10:15 a.m., in the Commission Chambers of the Washington County Administration Building in St. George. The following Board members were present and participated at the hearing: Chairman James T. Jensen, Jean Semborski, Ruland J. Gill, Jr., Carl F. Kendel and Chris D. Hansen. Board Members Jake Y. Harouny and Kelly L. Payne were unable to attend. The Board was represented by Michael S. Johnson, Esq., Assistant Attorney General.

Testifying on behalf of Petitioner Bill Barrett Corporation ("BBC") were David M. Watts – Landman, Jason G. Anderson – Asset Development Geologist, and Anna M. Young – Sr. Reservoir Engineer. Said witnesses were recognized by the Board as experts

in petroleum land management, geology and petroleum engineering, respectively, for purposes of this Cause. Frederick M. MacDonald, Esq., of and for Beatty & Wozniak, P.C., appeared as attorney for BBC.

The Division of Oil, Gas and Mining (the "Division") did not file a staff memorandum in this Cause but nevertheless participated in the hearing. Dustin Doucet, Petroleum Engineer, asked questions on the Division's behalf. Steven F. Alder, Esq., Assistant Attorney General, appeared as attorney for the Division. At the conclusion of BBC's presentation—in—chief, the Division expressed its support for the granting of BBC's Request for Agency Action dated February 10, 2012 (the "Request"), as conformed to the testimony and other evidence provided at the hearing.

On March 21, 2012, the Vernal District Office of the United States Bureau of Land Management, acting in its trust capacity on behalf of the Ute Indian Tribe, filed a letter with the Board Secretary expressing its support for the granting of the Request.

No other party filed a response to the Request and no other party appeared or participated at the hearing.

The Board, having considered the testimony presented and the exhibits received into evidence at the hearing, being fully advised, and for good cause, hereby makes the following findings of fact, conclusions of law and order in this Cause.

FINDINGS OF FACT

- 1. BBC is a Delaware corporation with its principal place of business in Denver, Colorado. BBC is duly qualified to conduct business in the State of Utah, and is fully and appropriately bonded with all relevant Federal, Indian and State of Utah agencies.
- 2. The oil, gas and associated hydrocarbons underlying captioned Sections 12 and 13 are Tribally owned and subject to an Exploration and Development Agreement between the Ute Indian Tribe, Ute Distribution Corporation and BBC, and approved by the United States Bureau of Indian Affairs (the "E & D Agreement").
- 3. By Order entered on September 27, 1978 in Cause No. 139-17 (the "139-17 Order"), the Board extended application of its prior Order entered on September 20, 1971 in Cause No. 139-8 (the "139-8 Order") to captioned Sections 12 and 13, and therefore established captioned Sections 12 and 13, respectively, each as a drilling unit for the production of oil, gas and associated hydrocarbons from the Lower Green River-Wasatch formations, defined as follows:

the interval from the top of the Lower Green River formation (TGR₃ marker) to the base of the Green River-Wasatch formations (top of Cretaceous), which base is defined as the stratigraphic equivalent of the Dual Induction Log depths of 16,720 feet in the Shell-Ute 1-18B5 well located in the S½NE¼ of Section 18, Township 2 South, Range 5 West, U.S.M., and 16,970 feet in the Shell-Brotherson 1-11B4 well located in the S½NE¼ of Section 11, Township 2 South, Range 4 West, U.S.M.

(the "Spaced Formations"), originally allowing only one producing well on each drilling unit.

- 4. By Order entered December 31, 2008 in Cause No. 139-84 ("the "139-84 Order"), the Board modified the 139-8 and 139-17 Orders, among other orders, to allow up to four (4) producing wells upon the drilling units comprised of captioned Sections 12 and 13 to be drilled at the option of the operator and with the operator's full discretion as to the development of the hydrocarbon resources; provided, that each additional well shall be no closer than 1,320 feet from an existing unit well completed in and production from the formations and no closer than 660 feet from the drilling unit boundary. The 139-84 Order does not specify whether the authorized wells may be all vertical, all horizontal or a combination of both.
- 5. The following wells have been drilled by BBC upon the captioned Sections 12 and 13 drilling units in accordance with the 139-84 Order and are currently producing from the Spaced Formations:

Well	Location	Division Approval Date
6-12-46 BTR	Sec. 12: SE¼NW¼ (1783' FNL/1930' FWL)	5/16/11
16-12-46 BTR	Sec. 12: SE¼SE¼ (655' FSL/750' FEL) BHL – SE¼SE¼ (660' FSL/660' FSL)	7/26/11

13-12-46 BTR	Sec. 12: SW ¹ / ₄ SW ¹ / ₄ (855' FSL/640' FWL)	1/24/12
5-13-46 BTR	Sec. 13: SW¼NW¼ (2153' FNL/1039' FWL)	1/12/11
13H-13-46 BTR	SHL - Sec. 13: SE ¹ / ₄ SE ¹ / ₄ (747' FSL/680' FEL) CSL - Sec. 13: SW ¹ / ₄ SE ¹ / ₄ (755' FSL/1394' FEL) Terminus - Sec. 13: SW ¹ / ₄ SW ¹ / ₄ (830' FSL/840' FWL)	11/10/11
7-13D-46 BTR	SHL-SW¼NE¼ (1881' FNL/1429' FEL) BHL – SW¼NE¼ (1980' FNL/1980' FNL)	8/8/11

In addition, an application for permit to drill for the following has been approved by the Division:

<u>Well</u>	Location	Division Approval Date
8-12D-46 BTR	SHL – Sec. 12: SE¼NE¼ (1756' FNL/25' FNL) BHL – Sec. 12: SE¼NE¼ (1980' FNL/810' FEL)	1/4/12

- 6. Through BBC's development of the Black Tail Ridge area, inclusive of and adjacent to captioned Sections 12 and 13, to date, it has been determined that:
 - (a) the Wasatch formation is dominated by fluvial and alluvial deposits with a few carbonate deposits. The Wasatch formation is primarily comprised of lenticular sands that cannot be correlated between wells on 160-acre density (four wells per section). The permeability and porosity of these rocks is extremely low but natural fracturing allows the oil and gas to be stored for exploitation. The

Green River formation is dominated by marginal lacustrine and open lacustrine deposits with a few alluvial deposits. Many of these deposits can be correlated between wells on 160-acre density but, due to the rock properties, are probably not effectively draining the entire 160 acres. Due to the poor porosity and permeability, the primary recovery factor for both of these formations is estimated at approximately 5%; and

(b) production occurs from a complex series of isolated and discontinuous beds randomly distributed vertically over a several thousand foot interval. The low matrix permeability and the nature of the natural fracture components of the reservoir reduces the effect of communication with the sand bodies that do correlate and does not allow for efficient drainage of the hydrocarbon resource.

Recent production results from a well drilled in Section 5, Township 3 South, Range 6 West, U.S.M. (within the Black Tail Ridge area), in an area with large historical cumulative oil production, as close as ~ 1,200' (~ 40 acre offset) to a previous oil producer, have also indicated the potential need for increased well density.

- 7. As a consequence, BBC desires to conduct a pilot program for the captioned Sections 12 and 13 allowing wells to be drilled up to the equivalent of 80-acre well density, *i.e.* up to eight (8) producing wells from the Spaced Formation, whether all vertical, all horizontal or a combination of both, to help determine the most efficient and economic spacing to develop the field.
 - 8. Sections 12 and 13 were selected to be part of the pilot program because:
 - (a) of the uniform sectional Tribal mineral ownership, which is all subject to the terms of the E&D Agreement with the BBC;
 - (b) those sections had no well penetrations prior to BBC's operations and therefore are more representative of how BBC is developing and completing

the wells, *i.e.*, the sections had no older wells with acid stimulations vs. hydraulically fractured completions, have uniform completion intervals and total depths, and have been drilled in a relatively tight time frame; and

- (c) the geology is relatively similar between all of the wells. The Lower Green River formation is comprised of shallow lacustrine (carbonite) in this area.
- 9. BBC has represented that, while most likely the orientations will be lay-down (horizontal), it desires flexibility in the determination of the orientation of the 80-acres in the pilot area; provided, however, that the orientation once selected must be consistent throughout the respective section. In addition, BBC has represented that no productive interval of a well will be located closer than 660 feet to a sectional boundary or 990 feet to another well producing in the Spaced Formations without an exception location approval obtained in accordance with Utah Admin. Code Rule R649-3-3.
- 10. Furthermore, after the drilling has occurred and results analyzed, BBC has agreed to report back to the Board on the success or failure of the pilot program.
- 11. It appears allowing the pilot program to proceed may lead to recovery of resources that may not otherwise be recovered.
- 12. Adequate evidence was presented to reflect that the additional pilot wells may be drilled economically.
- 13. A copy of the Request was mailed, postage pre-paid, certified with return receipt requested, and properly addressed to all mineral, leasehold and production interest owners in captioned Sections 12 and 13, and to the Bureau of Indian Affairs (Uintah and

Ouray Agency) and to the Utah State and Vernal Field Offices of the Bureau of Land Management. The mailings were sent to said parties at their last addresses disclosed by the relevant BIA and Duchesne County realty records. Proof of receipt by all such parties was evidenced by "Exhibit D," which was admitted into evidence.

14. Notice of the filing of the Request and of the hearing thereon was duly published in the Salt Lake Tribune and the Deseret Morning News in March 4, 2012, the Uintah Basin Standard on March 6, 2012, in Vernal Express on March 7, 2012.

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15. The vote of the Board members present and participating in the hearing on this Cause was unanimous (5-0) in favor of granting the Request.

CONCLUSIONS OF LAW

- 1. Due and regular notice of the time, place and purpose of the hearing was properly given to all parties whose legally protected interests are affected by the Request in the form and manner as required by law and the rules and regulations of the Board and Division.
- 2. The Board has jurisdiction over all matters covered by the Request and all interested parties therein, and has the power and authority to render the order herein set forth pursuant to Utah Code Ann. §§40-6-5(3)(b) and 40-6-6 and Utah Admin. Code Rule R649-3-2(10).

- 3. By virtue of the 139-17 Order, the Board made legal determination and declared the Spaced Formations to constitute on "pool" or "common source of supply" of oil, gas and associated hydrocarbons as relating to captioned Sections 12 and 13.
- 4. Correlative rights will be protected by the fact the mineral ownership and operating rights in the Spaced Formations are uniform in the entirety of Sections 12 and 13. Furthermore, the correlative rights of the parties in the adjacent sections are protected by virtue of maintaining the same sectional boundary set-offs as currently exist under the 139-84 Order and under Utah Admin. Code Rule R649-3-2(3) (applicable to horizontal wells in the absence of special orders of the Board).
- 5. The relief granted hereby will result in consistent and orderly development and the greatest recovery of oil, gas and associated hydrocarbons from the Lower Green River-Wasatch formations underlying captioned Sections 12 and 13 without waste, will adequately protect the correlative rights of all affected parties, and is just and reasonable under the circumstances.
- 6. BBC has sustained its burden of proof, demonstrated good cause, and satisfied all legal requirements for the granting of the Request.

ORDER

Based upon the Request, testimony and evidence submitted, and the findings of fact and conclusions of law stated above, the Board hereby orders:

- 1. The Request in this cause, as conformed to the testimony and other evidence provided at hearing, is granted.
- 2. The 139-84 Order is hereby modified to authorize the drilling, on a pilot basis, of additional wells, whether all vertical, all horizontal or a combination of both, upon the established drilling units comprised of captioned Sections 12 and 13 for production of oil, gas and associated hydrocarbons for the Spaced Formation up to the equivalent of an approximate 80-acre well density; provided, however, that within a reasonable time after analysis of the pilot program results but, in any event, not more than two years after entry of the Order, BBC report back to the Board on the success or failure of the program.
- 3. The orientation (stand-up or lay-down) of the 80-acres may be at the discretion of BBC; provided, however, that the orientation once selected must be consistent for each section.
- 4. No productive interval of any well so authorized may be located closer than 660 feet to a sectional boundary or 990 feet to another well producing from the Spaced Formations without an exception location approval obtained in accordance with Utah Admin. Code Rule R649-3-3.
- 5. Pursuant to Utah Admin. Code Rules R641 and Utah Code Ann. §63G-4-204 to 208, the Board has considered and decided this matter as a formal adjudication.

- 6. This Order is based exclusively on evidence of record in the adjudicative proceeding or on facts officially noted, and constitutes the signed written order stating the Board's decision and the reasons for the decision, all as required by the Administrative Procedures Act, Utah Code Ann. §63G-4-208 and Utah Administrative Code Rule R641-109.
- 7. Notice re: Right to Seek Judicial Review by the Utah Supreme Court or to Request Board Reconsideration: As required by Utah Code Ann. §63G-4-208(e) (g), the Board hereby notifies all parties in interest that they have the right to seek judicial review of this final Board Order in this formal adjudication by filing a timely appeal with the Utah Supreme Court within 30 days after the date that this Order issued. Utah Code Ann. §863G-4-401(3)(a) and 403. As an alternative to seeking immediate judicial review, and not as a prerequisite to seeking judicial review, the Board also hereby notifies parties that they may elect to request that the Board reconsider this Order, which constitutes a final agency action of the Board. Utah Code Ann. §63G-4-302, entitled, "Agency Review Reconsideration," states:
 - (1)(a) Within 20 days after the date that an order is issued for which review by the agency or by a superior agency under Section 63G-4-301 is unavailable, and if the order would otherwise constitute final agency action, any party may file a written request for reconsideration with the agency, stating the specific grounds upon which relief is requested.
 - (b) Unless otherwise provided by statute, the filing of the request is not a prerequisite for seeking judicial review of the order.

- (2) The request for reconsideration shall be filed with the agency and one copy shall be sent by mail to each party by the person making the request.
- (3)(a) The agency head, or a person designated for that purpose, shall issue a written order granting the request or denying the request.
- (b) If the agency head or the person designated for that purpose does not issue an order within 20 days after the filing of the request, the request for reconsideration shall be considered to be denied.
- Id. The Board also hereby notifies the parties that Utah Admin. Code Rule R641-110-100, which is part of a group of Board rules entitled, "Rehearing and Modification of Existing Orders," states:

Any person affected by a final order or decision of the Board may file a petition for rehearing. Unless otherwise provided, a petition for rehearing must be filed no later than the 10th day of the month following the date of signing of the final order or decision for which the rehearing is sought. A copy of such petition will be served on each other party to the proceeding no later than the 15th day of the month.

Id. See Utah Admin. Code Rule R641-110-200 for the required contents of a petition for Rehearing. If there is any conflict between the deadline in Utah Code Ann. §63G-4-302 and the deadline in Utah Admin. Code Rule R641-110-100 for moving to rehear this matter, the Board hereby rules that the later of the two deadlines shall be available to any party moving to rehear this matter. If the Board later denies a timely petition for rehearing, the party may still seek judicial review of the Order by perfecting a timely appeal with the Utah Supreme Court within 30 days thereafter.

- 8. The Board retains continuing jurisdiction over all the parties and over the subject matter of this cause, except to the extent said jurisdiction may be divested by the filing of a timely appeal to seek judicial review of this order by the Utah Supreme Court.
- 9. For all purposes, the Chairman's signature on a faxed copy of this Order shall be deemed the equivalent of a signed original.

DATED this 16th day of April, 2012.

STATE OF UTAH BOARD OF OIL, GAS AND MINING

James T. Jensen, Shairman

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER for Docket No. 2012-010, Cause No. 139-89 to be mailed with postage prepaid, this 16th day of April, 2012, to the following:

Frederick M. MacDonald Beatty & Wozniak, P.C. 7440 South Creek Road, Suite 300 Sandy, UT 84093

Michael S. Johnson Assistant Attorneys General Utah Board of Oil, Gas & Mining 1594 West North Temple, Suite 300 Salt Lake City, UT 84116 [Via Email]

Steven F. Alder Assistant Attorneys General Utah Division of Oil, Gas & Mining 1594 West North Temple, Suite 300 Salt Lake City, UT 84116 [Via Email]

Bill Barrett Corporation Attention: David Watts, Landman 1099 18th Street, Suite 2300 Denver, CO 80202-1939

Bureau of Land Management Utah State Office Attn: Roger L. Bankert P.O. Box 45155 Salt Lake City, UT 84145-0155 Bureau of Land Management Vernal Field Office Attn: Jerry Kenczka 170 South 500 East Vernal, UT 84078

Ute Energy Upstream Holdings, LLC 1875 Lawrence St. Suite 200 Denver, CO 80202

Ute Distribution Corporation P.O. Box 696 Roosevelt, UT 84066

Ute Indian Tribe Energy and Mineral Dept. P.O. Box 70 Ft. Duchesne, UT 84026

U.S. Bank, N.A. Attn: Justin M. Alexander 950 17th St., 8th Floor DN-CO-T8E Denver, CO 80202

Bureau of Indian Affairs Uintah & Ouray Reservation P.O. Box 130 Ft. Duchesne, UT 84026

Julie Ann Carter